## REMARKS

Claims 1, 5, 6, 12, 15-17, 19-21, 23, 26, 32, 35, 37 and 39 are pending. Argument is provided in support of the patentability of the pending claims. Accordingly, Applicants respectfully request reconsideration of the 35 USC §103(a) rejection of the claims of the present application and respectfully submit that the present application is in condition for allowance.

**Claim Rejection Under 35 USC §103(a)**

> *Claims 1, 5, 6, 12, 15-17, 19-21, 23, 26, 32, 35, 37 and 39 are rejected under 35 USC 103(a) as being obvious over U.S. Patent No. 5,523,045 issued to Kudert et al. in view of Japanese Patent Application Publication No. JP 03-041135 A of Fukui et al. and in further view of U.K. Patent Application Publication No. 2,295,617 A of Branch.*

Applicants respectfully request reconsideration and removal of this rejection for the following reasons.

First, Applicants respectfully renew their argument that Kudert et al. fail to disclose a core barrier layer having a thickness of 5 to 15 microns. As explained below in greater detail, the layers of Kudert et al. must form continuous layers through the length of the intermediate article without the layers bleeding through one another or becoming mixed with one another. The gas barrier layer must be continuous, uninterrupted and entirely embedded in the walls of the injection molded intermediate article/blown container if it is to provide its intended purpose. These layers also must remain intact during the blow molding process when the walls of the intermediate article are stretched, thinned, and radially and longitudinally expanded. The layers also must not delaminate during these processes or when the containers are filled, handled, and used.

Column 30, lines 53-62, of Kudert et al. state:

> "As mentioned EVOH is a relatively expensive material and, therefore, when it is employed as the polymer for oxygen-barrier layer C, it is highly desirable to keep the thickness of the layer to the minimum needed to impart oxygen-barrier property to the container's wall. The present invention facilitates reliable, high-speed manufacture of containers having an oxygen-barrier layer C **as thin as 0.001 inch** or less and which is substantially **continuous throughout the wall** and is substantially completely encapsulated by the inside and outside layers A and B."

The requirement that the oxygen-barrier layer C be "**as thin as** 0.001 inch" converts to a barrier layer "**as thin as**" 24.5 microns. Layer C must "impart oxygen-barrier property to the container's wall" and must be "continuous throughout the wall" to provide the barrier property. This layer will be stretched, thinned, and radially and longitudinally expanded during a blow molding process. Thus, based on this teaching, one of ordinary skill in the art would make layer C "**as thin as**" 24.5 micron, but not much thinner for fear of the layer becoming discontinuous or not sufficiently thick to provide the desired property since layer C is subjected to stretching, thinning and expansion during a container forming blow molding process.

While the Examiner is broadly interpreting the "or less" phrase present in the above paragraph as meaning as thin as 5 to 15 microns or perhaps even less, Applicants respectfully submit that such an interpretation is not consistent with the disclosure provided by the Kudert et al. patent. Applicants respectfully request reconsideration of the disclosure provided by the above paragraph. It does not fairly provide a disclosure of a layer C that is only 5 to 15 microns thick.

In addition, as a second and separate reason for the patentability of the claims of the present application, Applicants respectfully submit that one of ordinary skill in the art using common sense and routine skill and knowledge would not have reasonably modified and/or

combined the teachings of Kudert et al. with those of Fukui et al. and Branch. As stated below in greater detail, the technology of Kudert et al. is extremely difficult to control and predict, and Fukui et al. and Branch are directed to containers formed by entirely different technologies relative to that of the Kudert et al. patent.

For example, the Kudert et al. patent discloses the production of hot fill blow-molded containers. The containers (see FIGs. 2 and 2A) are produced as follows. First, several different types of molten materials are simultaneously injected (ie., "co-injected") into a cavity of an injection mold under high pressure (see FIGs. 130-135 and column 7, Table IV) to form a multi-layer intermediate article commonly referred to as a "parison" or "preform" (see FIGs. 1 and 1A). This intermediate article is permitted to harden and is then removed from the mold and located in blow molding apparatus. Thereafter, the intermediate article is heated and subjected to stretch-blow molding in a blow mold to produce a container such as a hot-fillable bottle.

Co-injection of different types of molten materials in an injection mold under high pressure is a very sensitive and complicated process, as demonstrated for instance by FIGs. 11-148 and corresponding description provided by the Kudert et al. patent. The object of Kudert et al. is to form continuous layers through the length of the intermediate article without the layers bleeding through one another or becoming mixed with one another. The gas barrier layer must be continuous, uninterrupted and entirely embedded in the walls of the injection molded intermediate article/blown container if it is to provide its intended purpose. These layers also must remain in tact during the blow molding process when the walls of the intermediate article are stretched, thinned, and radially and longitudinally expanded. The layers also must not

delaminate during these processes or when the containers are filled, handled, and used. Evan the slightest of changes to the composition of the layers can destroy the desired outcome.

FIG. 3 of the Kudert et al. patent provides a cross-sectional view of a wall of the blow molded container. The wall includes: innermost and outermost "structural layers" (A, B); an embedded layer (C) of oxygen barrier material; and adhesive layers (D, E) securing the oxygen barrier layer to the structural layers. The **only** disclosure provided by the Kudert et al. patent with respect to talc is on column 30, lines 13-15, which read as follows:

> "... The structural layers may contain fillers, such as calcium carbonate or talc, or pigments, such as titanium dioxide."

Applicants respectfully submit that this is an extremely vague and non-enabling disclosure of talc filler. One of ordinary skill in the art is neither taught the content of talc, the specific location of the talc layer, nor the type of talc. In addition, considering the complicated and highly sensitive process of co-injecting different molten materials without bleed through or mixing and then blow molding without bleed through or mixing of the different layers, one of skill in the art is not provided with sufficient information by Kudert et al. relative to the use of a talc filler.

Applicants respectfully submit that there is no fair disclosure provided by either of the Fukui et al. or Branch references that would cause one of ordinary skill in the art to think of combining them with the Kudert et al. patent.

The Fukui et al. reference discloses a resin composition that is molded into a single layer container. The resin composition is obtained by mixing: 100 parts by weight of PP powder; 1 to 120 parts by weight of talc; 0.01 to 2.0 parts by weight of a 6-hydroxychoman compound; and 0.01 to 0.05 parts by weight of a lubricant and/or antistatic agent. This powder mixture is then

molded. Molding of the powders is believed to be accomplished by **simple compression molding techniques**.

Fukui et al. fail to disclose a molten material for being co-injected into an injection mold under high pressure with other different molten materials and fails to disclose the use of the material in a multi-layer container. In addition, Fukui et al. clearly fail to disclose whether or not co-injecting of the powder mixture is possible or if the power mixture will bleed through or mix with other molten materials being simultaneously co-injected under pressure into an injection mold. Accordingly, there is no fair teaching by Fukui et al. or Kudert et al. to one of skill in the art that suggests the powder mixture of Fukui et al. (including the content of talc needed and relied upon in the cited claim rejection) could be co-injected under pressure in the sensitive and complicated process required by the Kudert et al. patent.

For at least this reason, Applicants respectfully submit that the claims of the present invention are patentable over the cited combination of references.

The Branch reference discloses a particular type of talc for use in forming a single layer shoulder of a tooth paste tube. Similar to Fukui et al., Branch fails to disclose whether or not its composition could be simultaneously co-injected with other different molten materials under pressure in an injection mold and then subjected to blow molding without bleed through, mixing or delamination with the other layers of a multi-layer blow-molded container. Accordingly, there is no fair teaching by Branch or Kudert et al. to one of ordinary skill in the art that suggests the composition for a single layer tooth paste shoulder disclosed by Branch could be co-injected under pressure in the process required by the Kudert et al. patent.

Accordingly, Applicants respectfully submit that it would not be obvious for one of ordinary skill in the art relying only on routine skill and knowledge to produce the invention required by the claims of the present applications based on the disclosures provided by Kudert et al., Fukui et al., and Branch. These prior art references are directed to different technologies for forming containers. Fukui et al. disclose a powder mixture that is not useful in the co-injection process of the Kudert et al. patent; thus, one of skill in the art would have no reason to combine the teachings of these references. Further, there is no fair disclosure in Branch suggesting that its composition could be co-injected as required by the Kudert et al. patent; thus, one of skill in the art would have no reason to combine the teachings of these references.

For these reasons, Applicants respectfully submit that claims 1, 5, 6, 12, 15-17, 19-21, 23, 26, 32, 35, 37 and 39 of the present application are patentable and are not-obviated by Kudert et al. in view of Fukui et al. and further in view of Branch. Applicants respectfully request reconsideration and removal of the rejection.

**Conclusion**

In view of the above remarks, Applicants respectfully submit that the §103(a) rejection has been overcome and that the present application is in condition for allowance. Reconsideration and a favorable action on the merits are therefore requested.

Please charge any deficiency or credit any overpayment for entering this Response to our deposit account no. 08-3040.

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